WHAT IS CLAIMED IS:

1. A process for aiding vascular navigation comprising:

a. acquiring a series of successive images (I_n) of a region of interest;

b. determining from the series of images (I_n) thus acquired a first mask presenting background structures and blood vessels of the region of interest;

c. determining a second mask presenting only the background structures;

d. acquiring an image (I_L) exhibiting at least one instrument introduced into one of the vessels of the region of interest;

e. determining an image (I_V) for visualizing by combination of the first and second masks and the image exhibiting the at least one instrument; and

f. displaying the image to be visualised thus determined.

2. The process as claimed in claim 1 wherein the combining is by subtraction.

3. The process as claimed in claim 1 wherein the first mask is determined by:

initializing the first mask with a first (I_0) image of the acquired series of images; and

for each following image (I_n) of the series of images the intensity of each point (i, j) of the following image (I_n) of the series is compared to the intensity of a corresponding point (i, j) of the first mask, a least intense point (i, j) becoming the point (i, j) of the first mask.

4. The process as claimed in claim 1 wherein the second mask is determined by:

initializing the second mask with the first image (I_0) of the series of images thus acquired;

for each following image (I_n) of the series of images the intensity of the point (i, j) of the following image (I_n) of the series is compared to the intensity of the corresponding point (i, j) of the second mask, the least intense point (i, j) becoming the point (i, j) of the second mask.

5. The process as claimed in claim 2 wherein the second mask is determined by:

initializing the second mask with the first image (I_0) of the series of images thus acquired;

for each following image (I_n) of the series of images the intensity of the point (i, j) of the following image (I_n) of the series is compared to the intensity of the corresponding point (i, j) of the second mask, the least intense point (i, j) becoming the point (i, j) of the second mask.

6. The process as claimed in claim 3 wherein the second mask is determined by:

initializing the second mask with the first image (I_0) of the series of images thus acquired;

for each following image (I_n) of the series of images the intensity of the point (i, j) of the following image (I_n) of the series is compared to the intensity of the corresponding point (i, j) of the second mask, the least intense point (i, j) becoming the point (i, j) of the second mask.

7. The process as claimed in claim 1 wherein the image to be visualized is determined by a weighted combination of the first and second masks and a live image.

8. The process as claimed in claim 2 wherein the image to be visualized is determined by a weighted combination of the first and second masks and a live image.

9. The process as claimed in claim 3 wherein the image to be visualized is determined by a weighted combination of the first and second masks and a live image.

10. The process as claimed in claim 4 wherein the image to be visualized is determined by a weighted combination of the first and second masks and a live image.

11. The process as claimed in claim 7 wherein the image to be visualized is determined by a formula of the type $I_v = \alpha (I_L\text{-}M) + \gamma (M\text{-}PO) + \lambda M$ where α, γ and λ are positive actuals, I_L is the, PO is the first mask, M is the second mask, $(I_L\text{-}M)$ is the image representing just the instrument and (M-PO) is the image presenting the map of only the vessels.

12. The process as claimed in claim 2 wherein the image to be visualized is determined by a formula of the type $I_v = \alpha (I_L\text{-}M) + \gamma (M\text{-}PO) + \lambda M$ where α, γ and λ are positive actuals, I_L is the, PO is the first mask, M is the second mask, $(I_L\text{-}M)$ is the image representing just the instrument and (M-PO) is the image presenting the map of only the vessels.

13. The process as claimed in claim 3 wherein the image to be visualized is determined by a formula of the type $I_v = \alpha (I_L\text{-}M) + \gamma (M\text{-}PO) + \lambda M$ where α, γ and λ are positive actuals, I_L is the, PO is the first mask, M is the second mask, $(I_L\text{-}M)$ is the image representing just the instrument and (M-PO) is the image presenting the map of only the vessels.

14. The process as claimed in claim 4 wherein the image to be visualized is determined by a formula of the type $I_v = \alpha (I_L\text{-}M) + \gamma (M\text{-}PO) + \lambda M$ where α, γ and λ are positive actuals, I_L is the, PO is the first mask, M is the second mask, $(I_L\text{-}M)$ is the image representing just the instrument and (M-PO) is the image presenting the map of only the vessels.

15. The process as claimed in claim 1 wherein when the masks are being determined the process comprises a correction stage for noise present in the masks.

16. The process as claimed in claim 2 wherein when the masks are being determined the process comprises a correction stage for noise present in the masks

17. The process as claimed in claim 3 wherein when the masks are being determined the process comprises a correction stage for noise present in the masks

18. The process as claimed in claim 4 wherein when the masks are being determined the process comprises a correction stage for noise present in the masks

19. The process as claimed in claim 7 wherein when the masks are being determined the process comprises a correction stage for noise present in the masks

20. The process as claimed in claim 14 wherein when the masks are being determined the process comprises a correction stage for noise present in the masks

21. The process as claimed in claim 15 wherein the correction comprises:

determining an average intensity (m_L) of the region of interest from the series of images (I_n) acquired earlier;

determining the first and second raw masks from the series of images acquired earlier;

determining an average intensity of the first and second raw masks, (m_{PO} and m_M) respectively; and

correcting the first and second raw masks from the average intensities (m_L, m_{PO}, m_M) previously calculated.

22. The process as claimed in claim 16 wherein the correction comprises:

determining an average intensity (m_L) of the region of interest from the series of images (I_n) acquired earlier;

determining the first and second raw masks from the series of images acquired earlier;

determining an average intensity of the first and second raw masks, (m_{PO} and m_M) respectively; and

correcting the first and second raw masks from the average intensities (m_L, m_{PO}, m_M) previously calculated.

23. The process as claimed in claim 17 wherein the correction comprises:

determining an average intensity (m_L) of the region of interest from the series of images (I_n) acquired earlier;

determining the first and second raw masks from the series of images acquired earlier;

determining an average intensity of the first and second raw masks, (m_{PO} and m_M) respectively; and

correcting the first and second raw masks from the average intensities (m_L, m_{PO}, m_M) previously calculated.

24. The process as claimed in claim 18 wherein the correction comprises:

determining an average intensity (m_L) of the region of interest from the series of images (I_n) acquired earlier;

determining the first and second raw masks from the series of images acquired earlier;

determining an average intensity of the first and second raw masks, (m_{PO} and m_M) respectively; and

correcting the first and second raw masks from the average intensities (m_L, m_{PO}, m_M) previously calculated.

25. The process as claimed in claim 19 wherein the correction comprises:

determining an average intensity (m_L) of the region of interest from the series of images (I_n) acquired earlier;

determining the first and second raw masks from the series of images acquired earlier;

determining an average intensity of the first and second raw masks, (m_{PO} and m_M) respectively; and

correcting the first and second raw masks from the average intensities (m_L, m_{PO}, m_M) previously calculated.

26. The process as claimed in claim 20 wherein the correction comprises:

determining an average intensity (m_L) of the region of interest from the series of images (I_n) acquired earlier;

determining the first and second raw masks from the series of images acquired earlier;

determining an average intensity of the first and second raw masks, (m_{PO} and m_M) respectively; and

correcting the first and second raw masks from the average intensities (m_L, m_{PO}, m_M) previously calculated.

27. The process as claimed in claim 21 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

28. The process as claimed in claim 15 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

29. The process as claimed in claim 16 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

30. The process as claimed in claim 17 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

31. The process as claimed in claim 18 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

32. The process as claimed in claim 19 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

33. The process as claimed in claim 20 wherein during correction the intensity of each point of the first raw mask is re-evaluated by a value equivalent to m_L-m_{PO} approximately and the intensity of each point of the second raw mask M is devalued by an equivalent value m_M-m_L approximately.

34. A radiography device comprising:

means for emitting radiation;

means for recording or acquiring images arranged opposite the means for emitting radiation;

means for support arranged between the means for emitting radiation and the means for recording or acquisition on which an object with an area of interest to be imaged is intended to be placed wherein the device comprises:

means for acquiring a series of successive images (I_n) of a region of interest;

means for determining from the series of images (I_n) thus acquired a first mask presenting background structures and blood vessels of the region of interest;

means for determining a second mask presenting only the background structures;

means for acquiring an image (I_L) exhibiting at least one instrument introduced into one of the vessels of the region of interest;

means for determining an image (I_V) for visualizing by combination of the first and second masks and the image exhibiting the at least one instrument; and

means for displaying the image to be visualised thus determined.